

ORNITHOLOGICAL LITERATURE

FLEAS, FLUKES AND CUCKOOS . . . A STUDY OF BIRD PARASITES. By Miriam Rothschild and Theresa Clay. (The New Naturalist series.) Collins, London, 1952, $5\frac{3}{4} \times 8\frac{1}{2}$ in., xiv + 304 pp., 40 pls., 5 numbered and many unnumbered text figs. 21 s. (\$2.94).

Behind a rather enigmatic title we find here a work which not only answers an urgent need for the average ornithologist, but does so in a most entertaining fashion. The field of bird parasitology has but a handful of specialists; yet it is one to which many are in a position to contribute, if only their interest is aroused by more readily obtainable basic information. Though the authors may have tried to crowd too much within the space of one small volume, they have done an admirable job, supporting their fresh popular account with plenty of sound scientific fact, and abundant suggestion for work to be done. Who would not be impressed by the mite adapted for life in the white areas of a nightjar's wings, or by the quill-louse known only from the remiges of a curlew! But this is no rambling series of parasitological oddities. The bird, with its parasites, is pictured as a little world, presenting all the problems of adaptation, competition, and evolutionary convergence and divergence found elsewhere.

The first part has brief and stimulating discussions of some of the problems of parasitism in general. Then follows what is to me the best section, closely comparing the bird-lice (Mallophaga) with the bird-fleas, groups upon which the junior and senior authors are respectively authorities. The Mallophaga are seen as an ancient, closely adapted, and much diversified group; the fleas (so far as birds are concerned) as a recent one, small in number of species and still imperfectly adjusted. In looking at the problems of the two groups side by side, we gain a much greater feeling of familiarity with both. The remainder of the book is a condensed survey of all the other major groups of bird parasites, including birds themselves, with consideration of typical life-histories and of the complex faunas of bird nests. Only in a few small groups could any attempt be made even to list the British species; but some sort of skeleton classification is usually presented, and the reader would find some help in starting identification.

Ornithologists will view with mingled feelings the recurring comments on parasites as indicators of avian relationships. There is in most cases remarkable confirmation of accepted systems. But attention is called, for example, to suggestions that the ostriches and rheas must after all be closely related, and that the flamingos do in fact belong with the anseriforms; and to such absurdities as linking (if we consider Mallophaga alone) the hawks, owls, and cuckoos. The authors take a fair-minded stand on the whole matter, urging the ornithologist to "accept the evidence from this source at least as a clue to relationship," while themselves pointing out some pitfalls threatening the parasitologist.

There are some typographical errors, one or two of which involve references to plates or pages and prove a trifle annoying. The excellent plates, many of them photomicrographs, will prove helpful in many ways. The indexing seems adequate, though in some ways unnecessarily complicated. Readers inspired to extend their studies of any group will find the fourteen-page bibliographical appendix extremely useful. It gives every evidence of being critically and expertly selected.

Books thus aimed at bringing together different fields of specialization are all too few. Though dealing specifically with the British fauna, this work outlines broader principles that are just as applicable elsewhere. I hope it is made readily available in

this country, to find its way to the shelf of every bird student interested in broadening his point of view.—William A. Lunk.

BIRDS AS INDIVIDUALS, By Len Howard. Collins, London, 1952:223 pp., 32 plates. 10s. 6d. (\$1.47).

Miss Howard is an English musician and amateur ornithologist who has succeeded, through extraordinary patience and tolerance, in overcoming completely the normal fear of humans in the small passerine birds around her Sussex cottage. Not only do birds come fearlessly to her hand while out-of-doors, but they also have complete freedom of the house; some even roost in the bedroom with the author. She wisely lists the disadvantages as well as the pleasures of such a living arrangement at the start of the book. Probably no other writer has ever been so closely acquainted with so many unconfined wild birds, and Miss Howard's observations and conclusions will be of interest to all students of avian behavior.

The book is divided into two sections. The first section, of 150 pages, is entitled "Bird Behavior." In this portion the author narrates her experiences with birds of her neighborhood, particularly Great Tits (*Parus major*) and Blackbirds (*Turdus merula*). This makes pleasant reading and includes many interesting and important notes on the great differences in behavior shown by individuals within a species. One such note tells of a Great Tit which, after being seriously injured and defeated in combat with another male, recovered his territory from the erstwhile victor by improvising highly elaborate bluff and threat displays. Another is the account of a Blackbird which always used an oak leaf held in his beak as an aid in courtship and territorial activity. Observations of this sort illustrate well the intraspecific plasticity which may lead to the evolution of new and striking behavior patterns.

The first section is concluded with a chapter entitled "The Mind of a Bird" which is probably the most controversial part of the book. In this chapter the author criticizes modern behavior theory for not attributing a greater and more human degree of intelligence and emotion to birds. Miss Howard makes a good case for the intelligence of some of the birds with which she is intimately acquainted, but whether or not some of the activities she describes should be attributed to reasoning or human-like emotions is largely a matter of opinion. No ornithologist would deny that birds often seem closely attached to their mates or young ("love"), or are aggressive toward rivals ("jealousy"), etc., but it is certainly debatable that birds feel such emotions in a way similar to humans. The reader may decide for himself whether Miss Howard is correct in taking the affirmative. Beyond this, probably few biologists will agree with her proposal that birds have some system of thought transference or mental telepathy, despite the claims of parapsychologists.

The second and shorter section of the book is an analysis of technique in bird song, written primarily from the standpoint of a musician. Miss Howard's perceptive discussion will be enjoyed by American readers even though they may be unfamiliar with the songs of the species described, and the author's deep appreciation and feeling for music has moved her to some charming descriptive passages. Miss Howard is consciously anthropomorphic in some of her interpretations, but, as before, she offers reasons for her opinions.

The book is written in a clear and simple manner, but the style is marred by the